Attachment G.24

SAPN_Information Technology (IT) Benefits

03 July 2015

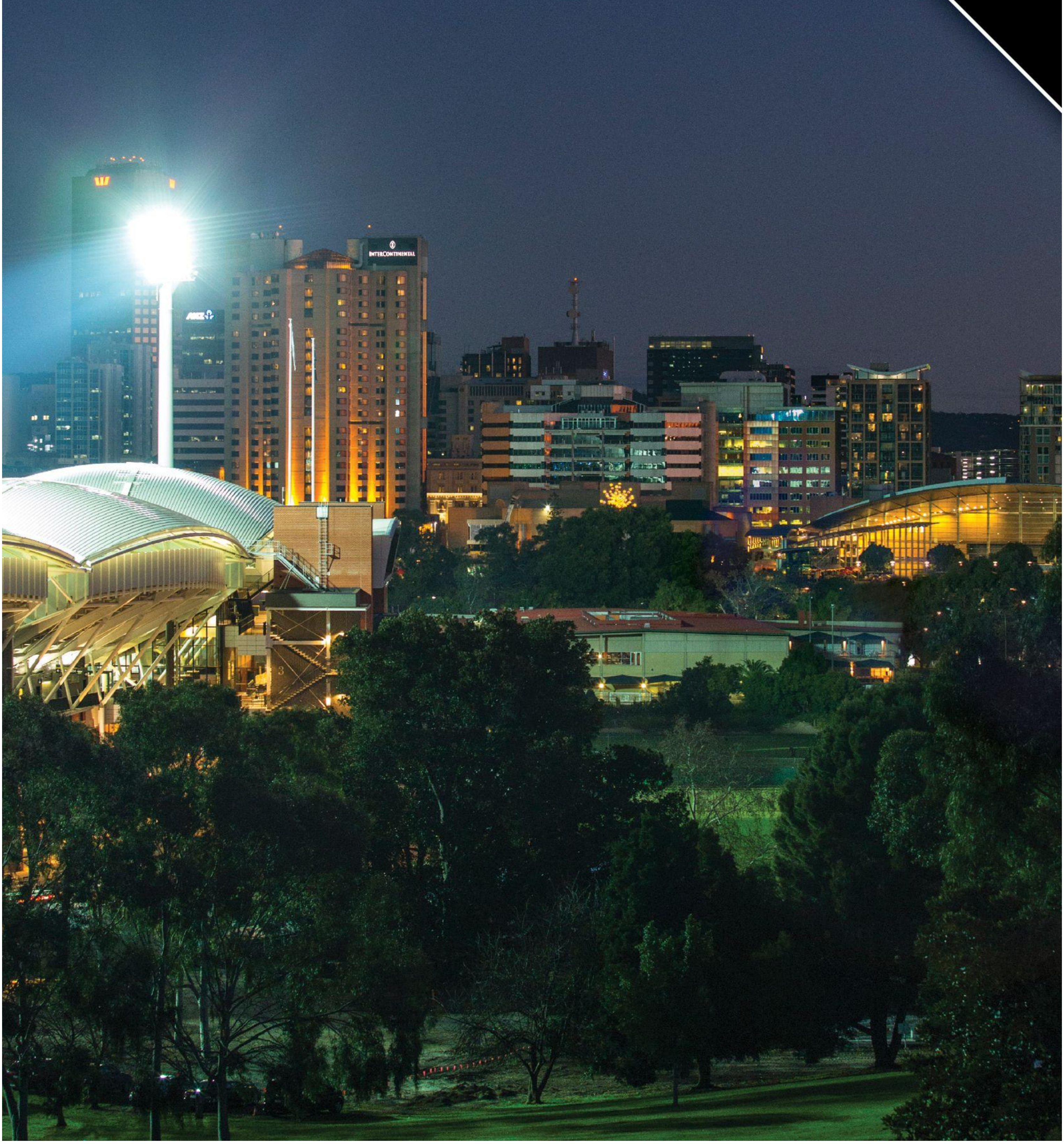


Table of Contents

1. Purpose

This document provides a high level summary of the proposed benefits associated with the delivery of the revised non-recurrent IT investment portfolio as documented in SA Power Networks' Revised Proposal.

Additional project information is contained in the associated business cases, see Attachment G.15 to G.23.

All dollar amounts in this document are expressed in June 2015 dollars.

2. Summary

In its Preliminary Determination, the AER asserted that the value of the tangible benefits from the non-recurrent IT capex portfolio is low compared to the size of the capital expenditure proposed.[1] SA Power Networks rejects this assertion on the basis the AER has incorrectly assumed that most of the non-recurrent IT project portfolio is discretionary.

We contend that the vast majority of projects are non-discretionary and are being undertaken to achieve the capital expenditure objectives contained in the National Electricity Rules (NER)[2]. Hence, business decisions to replace existing IT systems and/or to implement new IT systems to achieve compliance with regulatory or legal obligations are more focussed on the risk to our business and to our customers than justification on the basis of efficiency savings. Whilst tangible benefits have been identified for some of these projects, tangible benefits are not the primary business driver.

SA Power Networks has revised its non-recurrent IT project portfolio for the 2015-20 RCP in our Revised Proposal, based on the criticality of each initiative to our business. The projects in the revised non-recurrent IT portfolio are classified into three categories to represent the primary business drivers, as follows:

- Maintain (including risk and security): $85.4m (50% of costs);
- Compliance: $69.6m (42%); and
- Business Strategic: $14.3m (8%).

The associated tangible benefits to be delivered by the revised portfolio across the 2015-20 and 2020-25 RCPs are shown in Table 1.

Table 1 - Total Benefits by Type and RCP (June 2015, $ million)

RCP	2015-20	2020-25	Total Benefits
Cost Reduction	14.2	40.2	54.4
Cost Avoidance	27.3	33.6	60.9
Total	**41.5**	**73.8**	**115.3**

[1] AER, *Preliminary Decision: SA Power Networks determination 2015-16 to 2019-20,* Attachment 6 – Capital expenditure, p 6-120
[2] Clause 6.5.7(a) of the NER.

In summary:

- **$41.5m** worth of tangible benefits are forecast to be delivered by the revised portfolio of initiatives within the 2015-20 RCP. A further **$73.8m** is expected to be realised in the 2020-25 RCP.
- **$14.2m** of cost reduction/recovery benefits are forecast to be realised in the 2015-20 RCP. These benefits have been used to offset operating expenditure in our Revised Proposal. A further **$40.2m** of cost reduction/recovery benefits are forecast to be realised in the 2020-25 RCP.

The above analysis shows that despite the very high proportion of maintenance and compliance activities in the portfolio, which are non-discretionary in nature, there will be significant benefits delivered by these projects, particularly when viewed over the longer 10 year term.

From the analysis undertaken, SA Power Networks concludes that:

- the vast majority of non-recurrent IT projects to be delivered in the revised portfolio for the 2015-20 RCP are non-discretionary; and
- despite the non-discretionary nature of the portfolio, significant tangible benefits of more than $115m will be delivered. These benefits will ultimately be passed on to customers through a combination of reductions in base year operating costs and avoided operating cost increases at the next and subsequent resets.

3. Original Proposal

In our Original Proposal (October 2014)[3], SA Power Networks proposed a significant IT program of work of $353.7m over the 2015-20.[4] This Program consisted of $126.0m in recurrent capital and $227.7m in non-recurrent capital.

The Original Proposal also identified $58.0m of tangible benefits expected to result from this program, including $21.2m of cost recovery benefits that were used to offset forecast operating expenditure increases and $36.8m of avoidance benefits.

4. AER Preliminary Determination

The AER in its Preliminary Determination accepted that $126.0m worth of IT recurrent costs were prudent and efficient.[5] However it did not accept our non-recurrent portfolio of work and substituted an alternative forecast of $87.6m for this program of work.[6]

In rejecting SA Power Networks' non-recurrent IT forecast, the AER centred its attention on two main areas of concern, specifically:

- Resourcing and deliverability; and
- Business case review.

This report does not consider the first issue above. This is addressed in Section 7.15 of the Revised Proposal and in Attachment G.13 *IT Resourcing and Deliverability* to our Revised Proposal.

[3] Refer SA Power Networks, Regulatory Proposal 2010-15, Attachment 20.32: SAPN IT Investment Plan 2015-2020
[4] SA Power Networks, Regulatory Proposal 2010-15, Attachment 20.42 SAPN IT Benefits Map
[5] AER, Preliminary Decision: SA Power Networks determination 2015-16 to 2019-20. Attachment 6 – Capital Expenditure, p 6-122.
[6] AER, Preliminary Decision: SA Power Networks determination 2015-16 to 2019-20. Attachment 6 – Capital Expenditure, p 6-122.

In its review of the business case for projects, the AER raised concerns in relation to:

- no strong economic justification of projects;
- most projects are wholly or partially discretionary;
- low benefits provided by the projects; and
- a number of projects are driven by other elements not accepted in the Preliminary Determination.

This report focuses on the benefits to be delivered by the non-recurrent IT projects included in the Revised Proposal. In doing so it addresses the AER's concerns in relation to the discretionary nature of projects and also the options selected. This report must be read in conjunction with Section 7.15 of our Revised Proposal.

5. Our Response to the AER's Preliminary Determination

In Section 7.15 of the Revised Proposal, SA Power Networks accepts the AER's preliminary decision to allow $126.0 (June 2015, $ million) in recurrent IT capital expenditure, but rejects the AER's reduced allowance for non-recurrent IT expenditure (including business change costs).

Section 7.15 sets out the key arguments that address the AER's preliminary decision for non-recurrent IT capital expenditure.

Whilst SA Power Networks firmly believes that the non-recurrent IT program included in our Original Proposal is necessary, our Revised Proposal has a restructured program based on the criticality of each initiative to our business. As a result, the non-recurrent IT capital program to be delivered in the 2015-20 RCP has been reduced by 26%[7] in expenditure terms (from our Original Proposal).

The revised non-recurrent IT initiatives included in the 2015-20 RCP have been prioritised based on the following criteria:

- the need to mitigate risk (such as the Data Centre Consolidation, SAP Foundations, CIS OV/CRM, and Enterprise Information Security initiatives);
- the requirement to meet regulatory obligations and requirements (such as the Tariff and Metering and RIN Reporting and associated initiatives); and
- the ability to leverage opportunities utilising the above initiatives to deliver the highest priority organisational strategic objectives (such as the Project Portfolio Management and Field Force Mobility initiatives); these initiatives will enable and support compliance but also deliver additional strategic benefits to the business.

The remaining projects have been deferred to the next RCP. As a result the non-recurrent IT capital expenditure forecast has been reduced to $169.3m. This impacts the levels of benefits that will be derived from these activities. This document presents the revised benefits statement.

[7] Non-recurrent IT forecast has reduced from $227.7m in the Original Proposal to $169.3m in the Revised Proposal

In its Preliminary Determination, the AER notes that 'the economically preferred (highest NPV) option has been selected for only nine (of 24) projects'.[8] In these circumstances the preferred option was chosen because the do nothing or highest NPV options:

- did not adequately address the identified risks;
- in many cases did not include the material costs of risk in the investment appraisal, due to the subjective nature of risk likelihood and consequence;
- did not support known or impending regulatory compliance or legal requirements; and
- did not align or support SA Power Networks' strategic objectives.

Also in its Preliminary Determination, the AER found that 'most projects are wholly or partially discretionary in nature and not required to maintain service levels.'[9] SA Power Networks strongly disagrees with this. SA Power Networks categorises its non-recurrent IT capital expenditure to include end of life replacements or major technical upgrades of core systems that must be undertaken to maintain the currency and security of its operating environment. [10] In other words, SA Power Networks' non-recurrent IT capital expenditure is not limited to expenditure relating to the introduction of new capabilities and technologies.

The AER's assumption that our proposed non-recurrent IT projects are more likely to relate to the introduction of new capabilities and be discretionary in nature is incorrect. This assumption does not reflect SA Power Networks' practices or the nature of, and the drivers for, our proposed non-recurrent IT capital expenditure. These factors cannot be ignored when considering the relevance of this general assumption to the assessment of SA Power Networks' revised non-recurrent IT capital expenditure.

The determination of projects as either mandatory or discretionary will have flow-on impacts on benefits. In most cases replacement of core systems will not be undertaken to achieve efficiency savings, but rather to maintain the levels of service that are currently provided. Similarly system implementations and upgrades to comply with regulatory or legal obligations may not be economically justified, but are required to achieve the mandated outcomes.

SA Power Networks has identified quantifiable benefits for the revised non-recurrent IT project portfolio, as described below. It shows benefits to be realised in the 2015-20 RCP and also those that will be realised in the following 2020-25 RCP. The benefits in the 2015-20 RCP have been offset against our operating and capital expenditures, refer Section 9.

6. Revised Benefits Mapping

6.1 Scope

The benefits discussed in this section refer to the tangible benefits that will be realised during the 2015-20 RCP as a result of the revised non-recurrent IT capital expenditure forecast. [11] The total benefits extend beyond the 2015-20 RCP and are summarised in Section 8 of this report.

[8] AER, Preliminary Decision: SA Power Networks determination 2015-16 to 2019-20. Attachment 6 – Capital Expenditure, p 6-120.
[9] AER, Preliminary Decision: SA Power Networks determination 2015-16 to 2019-20. Attachment 6 – Capital Expenditure, p 6-120.
[10] SA Power Networks, Regulatory Proposal 2010-15, Attachment 20.32 - Information Technology Investment Plan 2015-2020, p.16.
[11] Recurrent capital expenditure was accepted by the AER and hence is not being revised as part of this resubmission.

The individual business cases provide detail on the benefits realisation period as part of the Net Present Value calculations. The business cases also provide detail on a substantial list of risk management and other intangible benefits.

6.2 Benefits Classification

A conservative and therefore prudent approach has been used in defining benefits in the financial analysis. Tangible benefits were classified into three basic types as defined in Table 2.

Table 2 - High Level Benefit Definitions

Benefit Type	Definition
Cost Reduction	A direct tangible benefit associated with reducing the cost of service as a result of the changes implemented.
Cost Recovery	A tangible benefit associated with increasing revenue due primarily to improved information.
Cost Avoidance	A real benefit associated with avoiding increased costs of service, driven by events that will happen or are reasonably expected to happen without a change in approach.

Cost Recovery only applies to one initiative (the CISOV/CRM Replacement) and hence the final benefits were classified into two predominant types – Cost Reduction/Recovery and Cost Avoidance.

The following were considered in a number of business cases but not included for the final financial consideration:

- cost avoidance associated with speculative risk management, system failures, security breach impacts or possible financial penalties for non-compliance of obligations;
- benefits that assume a speculative future market structure; instead the focus is on what will happen irrespective of the future market scenario;
- duplicate benefits that are recognised in other business cases; and
- benefits of an intangible or non-quantifiable nature.

6.3 Benefits Summary for 2015-20

As described above, in our Revised Proposal we have restructured our program of work based on the criticality of each initiative to our business. The revised list of initiatives by driver, benefit and cost is detailed in Table 3 below.

The Primary Driver provides a high level categorisation of the initiatives with a focus on relationship to the NER Objectives of Maintaining the Reliability and the Quality of Supply[12] **(Maintain)** and Comply with Obligations[13] **(Compliance). Business Strategic** initiatives are those which include scope to enable and support compliance but also include scope to deliver additional strategic benefits to the business.

[12] Clause 6.5.7(a)(3) of the NER.
[13] Clause 6.5.7(a)(2) of the NER.

Table 3 - Summary of Benefits, Drivers and Costs for Revised Non Recurrent IT Initiatives (June 21015, $ million)

		Drivers	CAPEX Costs (2015-20)			Benefits (2015-20)			Benefits (2020-25)
ID	**Business Case**	**Primary Business Driver**	IT Costs	Business Costs	**Total Costs**	Cost Reduction/ Recovery	Cost Avoidance	**Total Benefits***	**Total Benefits**
BC01	CISOV/CRM Replacement	Maintain	63.6	4.2	**67.7**	0.9	2.0	**2.9**	**5.1**
BC03	Enterprise Asset Management	Compliance	14.1	16.9	**31.0**	7.9	10.9	**18.8**	**33.2**
BC04	Financial Management	Compliance	3.3	1.8	**5.1**	0.0	1.6	**1.6**	**2.5**
BC05b	Portfolio, Program and Project Management	Business Strategic	5.4	0.9	**6.3**	0.0	4.0	**4.0**	**4.7**
BC09	SAP Foundation	Maintain	9.4	0.0	**9.4**	0.0	0.0	**0.0**	**0.0**
BC10	Intelligent Design Management System	Compliance	1.9	0.2	**2.1**	1.6	0.0	**1.6**	**2.1**
BC11	HR Systems	Compliance	1.1	0.5	**1.5**	0.4	0.0	**0.4**	**0.6**
BC16	Field Force Mobility	Business Strategic	6.5	1.5	**8.0**	2.9	6.5	**9.4**	**22.3**
BC17	Data Centre	Maintain	1.5	0.0	**1.5**	0.6	0.0	**0.6**	**0.9**
BC20	Tariffs and Metering	Compliance	9.6	1.5	**11.1**	0.0	0.0	**0.0**	**0.0**
BC21	BI Enablement	Compliance	1.5	0.0	**1.5**	0.0	0.0	**0.0**	**0.0**
BC24	Enterprise Information Management	Compliance	2.5	0.0	**2.5**	0.0	0.0	**0.0**	**0.0**
BC26	Enterprise Information Security	Maintain	6.7	0.0	**6.7**	0.0	0.0	**0.0**	**0.0**
BC32	RIN Reporting	Compliance	4.0	10.8	**14.8**	0.0	2.2	**2.2**	**2.5**
	Total		**131.0**	**38.3**	**169.3**	**14.2**	**27.3**	**41.5**	**73.8**

Note that $9.1m of additional operating expenditure for the above projects has not been included in step changes in our Revised Proposal. Further, additional resources to deliver the network capital program have been reduced to offset the net cost reduction benefits.

7. Benefits Analysis

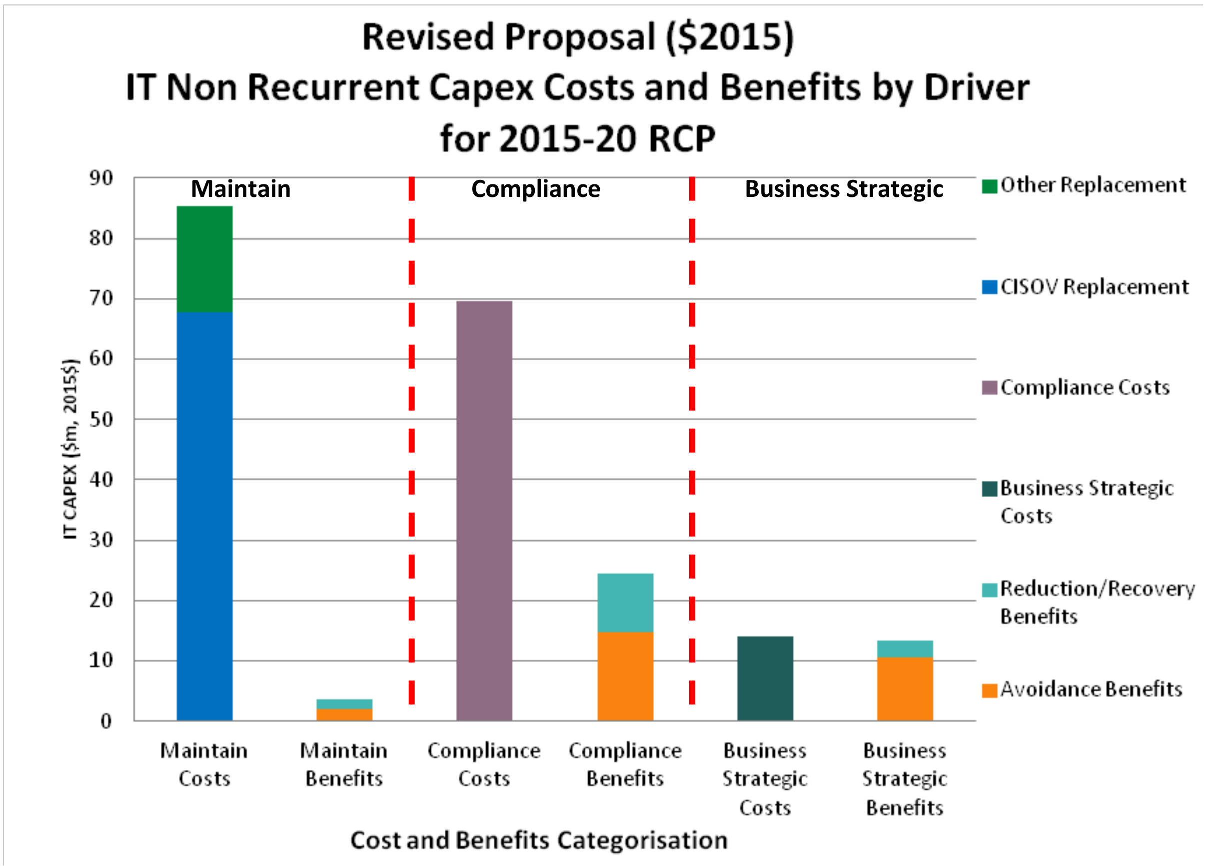
7.1 Primary Driver

A high level analysis was undertaken to classify the initiatives based on their primary business driver as set out in Table 4.

Table 4 - Benefits and Non Recurrent Costs by Primary Driver (June 2015, $ million)

Driver	Total Non Recurrent CAPEX	Percent of Total Non Recurrent CAPEX	Total Value of Benefits (2015-20)	Description
Maintain	$85.4m	50%	$3.5m	Initiatives primarily associated with the maintenance of current systems including system updates, upgrades, refreshes or replacements to manage the risk to current service. There are some benefits associated with these initiatives however the primary focus is that of maintaining service rather than adding capability.
Compliance	$69.6m	42%	$24.6m	Initiatives associated with achieving regulatory, legal or security compliance and compliance reporting (plus dependent projects). Benefits for initiatives in this category are predominantly cost avoidance – in particular associated with leveraging technology instead of additional resources to manage and meet compliance requirements.
Business Strategic	$14.3m	8%	$13.4m	These initiatives enable significant capabilities to assist the compliance initiatives and deliver efficiencies. There are cost reduction and cost avoidance benefits associated with these business cases.
Total	**$169.3m**		**$41.5m**	

Figure 1 - Benefits and IT Costs by Primary Business Driver



Maintain

Figure 1 above indicates the extent to which the IT non-recurrent capex is driven by the requirement to maintain service reliability and replace our aging billing and customer systems and refresh our ERP (SAP) systems. Approximately 50% of the forecast spend is associated with this. This activity is non-discretionary in nature and represents the key priority changes that need to be made for business services to continue with minimal disruption.

The CISOV/CRM Replacement project represents nearly 80% of the maintain project costs. This is the single largest IT project planned for the 2015-20 RCP and one which the AER in its Preliminary Determination has accepted as a 'key non-discretionary' project. [14]

By nature there are very few direct benefits from replacing systems and only $3.5m (through additional functionality) is expected to be realised from this activity in the 2015-20 RCP. In addition to the CISOV/CRM Replacement, the business cases for Data Centre and SAP Foundations provide for complete or significant upgrades or replacements during the 2015-20 RCP. The Enterprise Information Security business case manages the significant business and operational risk in an increasingly interconnected world.

These benefits do not include the avoidance benefits associated with key system failures, which are significant but more difficult to quantify. The non-discretionary nature of these changes is highlighted by the fact that the Data Centre, SAP Foundations and Enterprise Information Security projects have been identified as having an 'extreme' risk rating in our Corporate Risk Register.[15]

[14] Preliminary Decision: SA Power Networks determination 2015-16 to 2019-20. Attachment 6 – Capital Expenditure, p 6-122.
[15] SA Power Networks Corporate Risk Register, Risk no. R-000753.

Extreme risks have high to almost certain likelihood of a risk that could cause or is causing major adverse effects on the achievement of business objectives. Extreme risks are unacceptable to the business and can only be allowed to continue under extraordinary circumstances. They are reported and managed through the Board Risk Management and Compliance Committee.

Further information on the risks assigned to the above projects is contained in the respective business cases, refer to the following attachments to the Regulatory Proposal:

- G.17 Data Centre Consolidation;
- G.18 Enterprise Information Security Foundation;
- G.20 SAP Foundations; and
- G.21 CIS CRM

Compliance
Approximately 42% of the non-recurrent IT portfolio is related to non-discretionary Compliance projects. SA Power Networks is obliged to comply with its statutory, legal and regulatory obligations. The key focus of these projects in the 2015-20 RCP is:

- responding to the regulation-driven market changes (eg Tariffs and Metering); and
- responding to the regulation-driven reporting requirements (Enterprise Asset Management and RIN Reporting, and including some dependent support projects from the Enterprise Information Management, Financial Management, HR Systems, Integrated Design Management and Business Intelligence business cases).

Whilst some of the Rule changes associated with the compliance projects are yet to be finalised (eg for Tariffs and Metering), the nature of the five year regulatory cycle, plus the high degree of confidence that the compliance requirements are well understood and will occur, makes it clearly appropriate to include a forecast of expenditure for the costs that will be incurred during the RCP as a result.

The benefits identified for compliance costs of $24.6m are predominantly cost avoidance benefits, but do not include the costs of possible financial penalties for breaches of our regulatory obligations, which could be significant. Instead they focus on the costs that would be incurred if we had to comply with the regulatory obligations without being able to use technology. Using technology is significantly more efficient in meeting our compliance obligations.

Business Strategic
The final 8% of the non-recurrent IT initiatives have a key business strategic focus and include scope to deliver capabilities that both enable compliance and deliver additional efficiencies. Because of their direct relationship to compliance initiatives they are not considered discretionary in nature. They deliver a relatively strong cost/benefit ratio in the 2015-20 RCP ($14.3m/$13.4m). When benefits in the following 2020-25 RCP are included, they provide high justification on the basis of benefits to costs ratio.

These initiatives are detailed in the Field Force Mobility and Project Portfolio Management business cases.

8. Longer Term Benefits

While the benefits in the 2015-20 RCP have been detailed above, the full benefits from the revised portfolio of non-recurrent IT projects to be delivered in the 2015-20 RCP will not be realised until the following 2020-25 RCP. Table 3 and Figure 2 provide views of the benefits over the full period to 2025. Taken together these show the long term benefits of this program of IT work.

The expected benefits will increase from $41.5m in the 2015-20 RCP with an additional $73.8m in the 2020-25 RCP, thereby providing total benefits over the 10 year period of $115.3m from the revised non-recurrent IT portfolio of projects to be delivered in the 2015-20 RCP.

In the longer term, when related to the $83.9m of project costs associated with the compliance and strategic business related initiatives, the benefits outweigh costs by more than 30%. In particular, Cost Reduction benefits will almost triple in the 2020-25 RCP (compared to the 2015-20 RCP), as the technology and related process changes are fully embedded.

The efficiency benefits that are realised from the non-recurrent IT projects will ultimately be passed on to customers through reductions in operating expenditure base year costs at the next and subsequent resets.

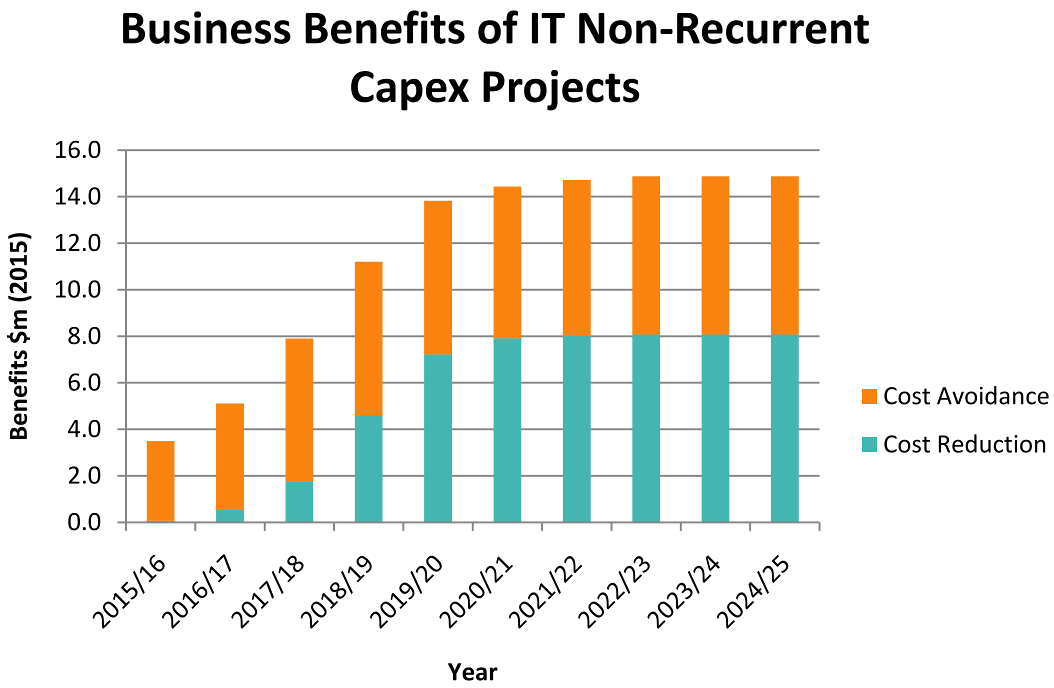
A summary of the benefits to be delivered from the revised IT non-recurrent portfolio of work is contained in Table 5 below.

Table 5 - Total Benefits by Type and RCP (June 2015, $ million)

RCP	2015-2020	2020-2025	Total Benefits
Cost Reduction	14.2	40.2	54.4
Cost Avoidance	27.3	33.6	60.9
Total	41.5	73.8	115.3

Figure 2 shows the benefits by type and by year for the 2015-25 10 year period. Benefits increase as capability is delivered over the next RCP and into the following, peaking in 2020-21.

Figure 2 - Forecast Benefits per annum for the 2015-20 and 2020-25 RCPs



9. Benefits Realisation

Benefits realisation is dependent on the AER providing appropriate funding for the revised portfolio of non-recurrent IT initiatives for the 2015-20 RCP in its Final Determination.

In our Original Proposal, we identified $21.2m of cost reduction benefits to be realised across the business from the IT program investment. Due to the revised portfolio of projects, the cost reduction benefits for the 2015-20 RCP have reduced to $14.2m in our Revised Proposal. The benefits in the 2015-20 RCP have been offset against our operating and capital expenditures. In particular, these savings have been offset by excluding the $9.1m increase in additional operating costs that was not funded by the AER in its Preliminary Determination for the following non-current IT projects:

- Portfolio, Program and Project Management;
- Field Force Mobility;
- Enterprise Asset Management;
- Intelligent Design Management System;
- HR Systems;
- Financial Management;
- Enterprise Information Management; and
- Business Intelligence Enablement.

The remaining benefits have been offset in other capital expenditure items through a reduction in resource requirements.

As described in Section 8, a further $40.2m of cost reduction benefits are expected to be realised in the 2020-25 RCP from the IT non-recurrent projects to be delivered in the 2015-20 RCP.

10. Conclusion

In its Preliminary Determination the AER concluded that the non-current IT capital expenditure program had not been adequately justified on an economic basis. However, SA Power Networks maintains that the AER's assumptions of the discretionary nature of the program of work are not correct. In particular the non-recurrent IT capital program contains very significant maintain and compliance activities that are non-discretionary and therefore there are other factors in addition to the NPV of projects that must drive decisions on the prudency of the portfolio of work.

SA Power Networks contends therefore that the AER's assumption on the discretionary nature of projects has led to an incorrect expectation that economic benefits are required to justify the portfolio of non-recurrent IT projects to be delivered in the 2015-20 RCP.

The business decisions to replace existing IT systems and/or to implement new IT systems to achieve compliance with regulatory or legal obligations are focussed on the risk to our business and to our customers and not on justification on the basis of efficiency savings. Whilst tangible benefits have been identified for these projects, they are not the primary business driver, as is clearly shown in the analysis provided here.

Despite the very high proportion of maintenance and compliance driven projects in the portfolio, there will be material benefits delivered by these projects, particularly when viewed over the longer 10 year term.

The non-recurrent IT projects to be delivered in the 2015-20 RCP are driven by requirements to maintain our current levels of service and to comply with all regulatory and legal obligations and are not discretionary. This is in accordance with the capital expenditure objectives contained in the NER.[16]

[16] Clause NER 6.5.7(a) of the NER.